Claims

1. Energy generator as dynamo-electric machine with separate and harmonised employment of the positive and negative interacting forces at the input and output of the permanent magnets, characterised by a primary (2) comprising one or more pairs (C_1, C_2) of polar expansions (E_1, E_2; E_3, E_4), mechanically separated and electrically offset from each other by a polar step (p) and each provided with a ferromagnetic core (A_1, A_2, A_3, A_4) and with at least an electromagnetic coil (B_1, B_1', B_2, B_2'; B_3, B_3', B_4, B_4') and by a secondary (3) comprising a succession of alternated heteronomous permanent magnets (3_1, 3_2, ..., 3_{10}), and by a related control system (5), wherein each polar step (p) spans half a permanent magnet of said alternated heteronomous permanent magnets (3_1, 3_2, ..., 3_{10}), equal to a fourth of a complete cycle (p_1 or p_2) the magnetic forces being balanced by those of the permanent magnets for the characteristic paired disposition of the polar expansions active separately during the conductor steps (p_1) and its ferromagnetic cores active separately during the neutral steps in "natural" attraction (p_2), whose equilibrium disposition is obtained with the phase offset of the expansion pair with its ferromagnetic cores, one positioned at the centre of the permanent magnets and the other one distanced by a polar step (p) between two permanent magnets, thereby zeroing the competing forces, with a continuity, at alternating and superimposed steps, of "natural ferromagnetic" plus "artificial electromagnetic" energy in two complete superimposed energy cycles.

2. Energy generator as dynamo-electric machine according to claim 1, characterised in that the two separate energy cycles are divided into four fourths each acting on two permanent magnets of opposite polarity (3_1, 3_3, 3_5, 3_7, 3_9 with 3_2, 3_4, 3_6, 3_8, 3_{10}), in the first "natural energy" cycle at the input of the permanent magnets the two ferromagnetic cores of the pair (C_1, C_2) work first one then the other (A_1, A_3; A_2, A_4) during the alternating neutral steps (p_2) for two separate cycle fourths each in a complete cycle (16, 17; 18, 19) and in the second superimposed cycle of "artificial

energy" at the output of the permanent magnets, the polar expansions (E_1, E_2; E_3, E_4) of the pair (C_1, C_2) with its coils (B_1, B_1', B_3, B_3'; B_2, B_2', B_4, B_4') also work first one and then the other during the alternating conductor steps (p_1) for two separate cycle fourths each in a complete cycle (12, 13; 14, 15), all by means of the control system (5) that switches the neutral steps (p_2) and the conductor steps (p_1) alternatively on one (B_1, B_1', B_3, B_3') or the other coil (B_2, B_2', B_4, B_4') at the output of the permanent magnets.

3. Energy generator as dynamo-electric machine according to claim 1, characterised in that, when it operates as a motor, each electromagnetic coil (B_1, B_1', B_3, B_3'; B_2, B_2', B_4, B_4') is powered with positive and negative electrical current (12, 13; 14, 15) only for two separate cycle fourths during a complete repulsion cycle on two successive heteronomous permanent magnets during the conductor steps (p_1), switched by the control system (5), the electromagnetic energy is transformed into mechanical energy and goes to the axis (23) in parallel to the second superimposed cycle of "natural energy" (16, 17; 18, 19) produced by the ferromagnetic cores (A_1, A_3; A_2, A_4) at the input to the successive heteronomous permanent magnets during the neutral steps (p_2) also transformed in mechanical energy, with the addition of the two energies (12, 14, 13, 15) + (16, 18, 19, 17) and with continuous and linear absorption.

4. Energy generator as dynamo-electric machine according to claim 1, characterised in that, when it operates as a generator of electrical energy, the axis (23) of the machine is powered with mechanical energy which is transformed into electrical current by each electromagnetic coil (B_1, B_1', B_3, B_3'; B_2, B_2', B_4, B_4') for two separate cycle fourths each (12, 13; 14, 15) during a complete cycle (12, 13, 14, 15), the energy produced is drawn through the control system (5) during the conductor steps (p_1) whilst the "natural energy" of the neutral steps (p_2) active in attraction add their energy (16, 18, 19, 17) to the mechanical energy supplied to the axis (23) with

the result of a dual transformed energy (12, 14, 13, 15) + (12, 14, 13, 15) and with total power relating to the sum of each separate cycle.

5. Energy generator as dynamo-electric machine according to each of the previous claims, characterised in that the polar expansions (E_1 ...) of the primary (2) with the coils (B_1 ...) and the ferromagnetic cores (A_1 ...) are mechanically distanced from each other by a double polar step ($p_1 + p_2$) equal to an entire permanent magnet and all opposing the centre of the alternated heteronomous permanent magnets (3_1, 3_2, ...) of the secondary (3), whilst the working step (p) is always of a fourth of a cycle, equal to half a permanent magnet, the energy at play in the two separate cycles is not superimposed but dovetailed and in cyclical successions, for two separate cycle fourths (8, 10) between the "natural ferromagnetic energy" (E_1', E_1'' ') and for two other separate cycle fourths (9, 11) with the "electromagnetic energy" (E_1'', E_1''') for a complete cycle, alternate by contiguous of four fourths (8, 9, 10, 11), all controlled by a system that electrically connects the coils at alternating steps (p), a conductor step (p_1) and a neutral step (p_2) in cyclical sequence.

6. Energy generator as dynamo-electric machine according to each of the previous claims, characterised in that the polar expansions (E_1, E_2; E_3, E_4) of the primary (2) and the alternated heteronomous permanent magnets (3_1, 3_2, ..., 3_{10}) of the secondary (3) can be positioned indifferently opposite in the stator (2) and rotor (3) and vice versa.

7. Energy generator as dynamo-electric machine according to each of the previous claims, characterised in that the polar expansions (E_1, E_2, E_3 and E_4) of the primary (2) are positioned longitudinally to the axis of motion (23) with the secondary (3) and opposite to the North South permanent magnets (3_1, 3_2) also positioned longitudinally and in heteronomous alternated succession (3_1 and 3_2, 3_3 and 3_4, 3_5 and 3_6, ...).

8. Energy generator as dynamo-electric machine according to each of the previous claims, characterised in that the control system (5) comprises a collector with related brushes which electrically connect at alternating conductor (p_1) and neutral (p_2) polar steps (p) the coils (B_1, B_1', B_3, B_3'; B_2, B_2', B_4, B_4') of the polar expansions (E_1, E_3; E_2, E_4) said polar steps (p) switch with a frequency of a fourth of a cycle.

9. Energy generator as dynamo-electric machine according to claims 1, 2, 3, 4, 5 and 6 characterised in that the control system (5) comprises a decoder of the alternating polar steps (p) corresponding to the conductor steps (p_1) and neutral steps (p_2), by optical, magnetic, resistive, inductive or other measuring systems which drive an electronic control system with transistors, thyristors, triac or other means for the alternated electrical conduction switching of the coils (B_1, B_1', B_3, B_3'; B_2, B_2', B_4, B_4') relating to the polar expansions (E_1, E_3; E_2, E_4) said polar steps (p) switch with a frequency of a fourth of a cycle.

10. Energy generator as dynamo-electric machine according to claims 1, 2, 3, 4, 5, 6 and 7 characterised in that said polar expansion (E') cores (A') and said permanent magnets (3_1, 3_2) are opposite.

11. Energy generator as dynamo-electric machine according to claims 1, 2, 3, 4, 5, 6 and 7 characterised in that said polar expansion (E") cores (A_1") and said permanent magnets (20) are in an axial relationship.

12. Energy generator as dynamo-electric machine according to claims 1, 2, 3, 4, 5, 6 and 7 characterised in that said polar expansion (E' ") cores (A_1' ") are axially opposite pairs (21, 22) of said permanent magnets positioned laterally thereto.

13. Energy generator as dynamo-electric machine according to each of the previous claims characterised in that the disposition of the polar expansions (E_1, E_2, E_3 and E_4)

of the primary (2), of the alternated heteronomous permanent magnets (3_1, 3_2 ...) of the secondary (3) and of the control system (5) is indifferently rotatory, linear, linear annular, as well as with partial sectors for servo-controls destined to specific uses.

14. Energy generator as dynamo-electric machine according to each of the previous claims characterised in that the invention is realised by coupling (C_1, C_2) two traditional dynamo-electric machines (M_1, M_2), mechanically and electrically offset by the rotation of a fourth of a cycle equal to one polar step (p) of one (M_1) with respect to the other (M_2) and mechanically fastened in line in a common axis (23) and which works through the control system (5) electrically switching first a dynamo-electric machine (M_1) then the other (M_2) for two separate fourths each (12, 13; 14, 15) in a complete cycle of four fourths of electromagnetic energy (12, 14, 13 and 15) during the conductor steps (p_1) and four superimposed fourths of natural energy (16, 18, 19, 17) relating to the neutral polar steps (p_2).

15. Energy generator as dynamo-electric machine according to each of the previous claims characterised in that the invention is realised with a common traditional dynamo-electric machine wherein the switch of its expansions E_1, E_2, ...) is performed for instance with a traditional collector (5) having twice the number of polar steps (p), a conductor step (p_1) and a neutral step (p_2) equal to two separate cycle fourths each (8, 10 and 9, 11), functioning in cyclical sequence for a complete alternated by contiguous cycle of four fourths (8, 9, 10, 11).

16. Energy generator as dynamo-electric machine according to each of the previous claims characterised in that the permanent magnets (3_1, 3_2, 3_3, ... 3_{10}) which create the magnetic field are constituted by electromagnets excited electrically in negative feedback.